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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RAMANATHAN RAMANATHAN

Appeal 2008-003404
Application 09/138,807[1]
Technology Center 2400

Decided: September 25, 2009

Before JOHN C. MARTIN, LEE E. BARRETT, and SCOTT R. BOALICK, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 12-18, 20-23, and 25-43. Claims 1-11, 19, 24, and 44 have been canceled. We have jurisdiction pursuant to 35 U.S.C. § 6(b).

We reverse.

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[1] Filed August 21, 1998, titled "Confirming Video Transmissions." The real party in interest is Intel Corporation.

STATEMENT OF THE CASE

The invention

This invention relates generally to video transmissions such as interactive broadcasting which involves, for example, broadcasting television programming together with web content. Spec. 1.

A broadcast encoder interleaves, or multiplexes, television programming and web content and transmits it over a transport. Because of bandwidth limitations and the availability of multiple transport mechanisms, it may be difficult for the broadcast encoder to report when a particular broadcast has actually occurred. For example, a particular piece of web content information may be routed over available bandwidths. During busy periods, these bandwidths may be tied up for considerable amounts of time or the available transmission bandwidths may be relatively limited. Therefore, it may not be determinable in advance, in all cases, exactly when a particular transmission will occur, how long it may take to complete the transmission, and when the transmission will be completed. Spec. 1-2.

This lack of transmission certainty may be a problem for the content provider who may need to know when a transmission has been completed and how long a particular broadcast encoder takes to transmit the content provider's web content. This may be important in a variety of settings including determining whether a particular broadcaster has complied with its contractual obligations to broadcast a particular item and in ensuring that users have received information which may be critical to subsequent transmissions or subsequent activities. The content provider may not be able

to proceed with other transmissions or activities until it knows that an initial transmission has been received. Thus, there is a need, in connection with interactive broadcasting, for providing confirmation services. Spec. 2.

The invention relates to tracking video transmissions to provide a time based indication of what content has been broadcast. In one embodiment, markers may be inserted into the data transmission flow and a method may be utilized to associate a handle with a particular marker. A method may be called which obtains the handle and another method may be utilized to invoke the handle to obtain current information about transmissions. Abstract. The system in Figure 2 "calls a count server 30 which includes a bit counter 32 and a time counter 34. The count server 30 counts transmitted bits and elapsed time." Spec. 5, ll. 1-3. This current information about the transmission may be used within a broadcast encoder or may be provided to a content provider, e.g., through a log-in server. Abstract.

The claims

The four independent claims, claims 12, 16, 26, and 36, are reproduced below:

> 12. A transmission system comprising:
>
> an encoder that combines different transmissions to distribute to a plurality of receivers;
>
> a device that sets a first marker in the transmission; and
>
> a counter to track the transmission from the time a handle to the first marker is obtained, said handle to enable said first marker for tracking.

16. An article comprising a medium for storing instructions that cause a computer to:

set a first marker in a transmission;

call one method to provide a handle to said first marker;

in response to providing said handle, track the on-going transmission from said first marker; and

at any time after said handle is provided, call a method other than said one method, said other method to obtain tracking information relative to said first marker without terminating said tracking from said first marker, said tracking information current as of the time said other method is called.

26. A method comprising:

receiving a handle to a first marker that is set in a transmission, said transmission to be distributed to a plurality of receivers; and

tracking the transmission after said first marker, said tracking on-going from the time said handle to said first marker is received.

36. A method for tracking video transmissions comprising:

setting a first marker in a transmission having video content;

invoking a first method to provide a handle to said first marker; and

in response to providing said handle, tracking the transmission from the time the handle to the first marker is provided until a time a second method other than said first method is invoked, said second method to obtain current transmission details while said tracking from said first marker continues without interruption, said second method invokable at any time to provide details relative to said first marker.

The references

Echeita	US 5,826,165	Oct. 20, 1998 (filed Jan. 21, 1997)
Kenner	US 5,956,716	Sep. 21, 1999 (filed Jun. 07, 1996)

The rejections

Claims 12-18, 20-23, 25-34, and 36-42 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kenner.

Claims 35 and 43 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kenner and Echeita.

PRINCIPLE OF LAW

"Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983).

FINDINGS OF FACT -- CONTENTS OF KENNER

Kenner describes a video clip storage and retrieval system whereby video clips, stored locally and/or at a more remote location, can be requested and retrieved by a user at the user's multimedia terminal.

"The system is partitioned into database index managers ('IMs'), extended storage and retrieval units ('extended SRUs'), data sequencing interfaces ('DSIs'), local storage and retrieval units ('local SRUs'), and user terminal modules." Col. 4, ll. 46-50. The system is shown in Figure 1.

Kenner describes the general operation as follow:

> When the user requests a desired video clip, the request is processed by a primary index manager ("PIM") via a Local Search and Retrieval Unit ("SRU"). Before the message is communicated to the PIM, the local SRU checks its own storage to see whether the requested video clips are available locally. If some of the video clips are local, the local SRU still forwards the request to the PIM so that the PIM may determine specific video clip usage. The PIM determines the extended SRU where the audio-visual data is stored and passes this information to a Data Sequencing Interface ("DSI"). The DSI collects the video clips and downloads the clips to the user's terminal. The user may then view, copy, or print the video clip as desired.

Abstract.

The local SRU is the temporary storage location for video clips and for information downloaded from the extended and/or remote SRUs for use at the user terminal. Col. 8, ll. 52-55. Local search and update logic at the local SRU searches storage media for requested video clips before a query is transmitted to the PIM and identifies and tracks the most frequently requested audiovisual clips to ensure that only the most heavily used video clips are stored at the local SRU. Col. 9, ll. 42-61.

The primary index manager ("PIM") is the primary search engine and database management module. Col. 10, ll. 11-12.

The extended SRU is the principle storage facility for the system and is used to save audio-visual data in a plurality of audio-visual media. Col. 11, ll. 26-28.

A DSI is created by the PIM to facilitate data transfer from the extended and remote SRUs to the user terminal. Col. 12, ll. 5-7. A DSI is

created and initialized by the PIM whenever a user requests audiovisual information that is not stored within the local SRU and is normally created just prior to the video data download and destroyed immediately thereafter. Col. 12, ll. 14-18.

The system employs several databases. Database fields are denoted by regular parentheses, e.g., "(Field 1)," if the field is not related to another database, and by square brackets, e.g., "[Field 2]," is the field is related to another database. Col. 13, ll. 10-19. The PIM maintains four database structures: (1) a "text database," which contains records with searchable fields, one of which is the [Video ID] field (col. 13, ll. 26-34); (2) an "IM list," which provides information to target specific databases during data queries (col. 13, ll. 35-39); (3) an "SRU list," which maintains an (SRU Under-run Count Rate) indicating the number of times in a predetermined period that the extended/remote SRUs were not able to fulfill data requests because the SRUs were busy downloading, and an (SRU Access Count Rate), which monitors how often during a predetermined time interval a particular SRU is used for video delivery (col. 13, ll. 55-67); (4) an "audio-visual data index," which identifies each video clip and identifies its location (col. 14, ll. 1-25), and includes the [Video ID] field, where the "[Video ID] is a unique reference identifier for each video clip and corresponds to an identifying field within the text database" (col. 14, ll. 8-10); and (5) the "audio-visual access list," which maintains a list of DSI supporting computer systems (col. 14, ll. 47-62).

When the DSI is created, the PIM transmits a data structure that identifies the requested video clips, and the exact location (or locations) of each video clip. Col. 15, ll. 35-56. When a video clip is successfully downloaded from an SRU, "[t]he DSI 30 updates the SRU access counter and transmits this information to the PIM 22 for use in monitoring demands on the SRUs." Col. 16, ll. 57-59. Kenner describes:

> Whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. If the SRU under-run count exceeds a predetermined threshold value (communicated to the DSI 30 upon creation), the PIM 22 directs further requests away from this affected SRU by having the DSI 30 query alternate SRUs for the video clip information.

Col. 16, l. 66 to col. 17, l. 7.

ANTICIPATION

Claims 12-15

Contentions

The Examiner finds: (1) Kenner's content provider's region (col. 21, ll. 6-14) corresponds to the claimed "encoder that combines different transmissions" because it transmits video clips combined with database information; (2) the [Video ID] field (col. 28, ll. 1-5) in a video clip corresponds to the claimed "marker"; (3) the time when the data structure sent by the PIM when creating a DSI is received, which data structure contains a [Video ID] field (col. 15, ll. 35-47), corresponds to "the time a handle to the first marker is obtained"; (4) the video clip corresponds to the

claimed "transmission"; and (5) the (SRU Access Count Rate) field (col. 13, ll. 55-67) which is in the data structure sent by the PIM to the DSI and which is sent by the DSI to the PIM after a download from an SRU corresponds to the claimed "counter to track the transmission." *Id.* at 5; Ans. 14-16.

Appellant argues that Kenner's (SRU Access Count Rate) does not track the transmission of a video clip from the time a data structure (which the Examiner finds corresponds to a handle) is created. Br. 13. It is noted that the (SRU Access Count Rate) is part of the "SRU list" data structure on the PIM, but "the SRU list does not have a [Video ID] field, which is a unique reference identifier for a video clip." Br. 14. It is also noted that the DSI reports to the PIM whether a video clip was successfully downloaded using the (SRU Access Count Rate) or (SRU Under-run Count Rate), but:

> Kenner does not state that the DSI's report to the PIM regarding the (SRU Access Count Rate) or (SRU Under-run Count Rate) includes the identifier for that particular video clip. In fact, the database that this information is communicated to does not associate the count rates for each SRU with a particular video clip. Thus, the (SRU Access Count Rate) merely monitors how often during a predetermined time interval that *a particular SRU is used* for video delivery in general without regard to a particular video clip. *See* column 13, lines 55-65. Thus, the (SRU Access Count Rate) does not track the video clip proper.
>
> Moreover, because a particular (SRU Count Rate) is not incremented until a time after the data structure is created, after a particular SRU is queried and successfully downloads a clip, Kenner does not start counting at the time the data structure is created. The examiner asserts that claim 12 only states *from a time (any time)* that the data structure counter field is created. Paper No. 20060707. This is not so, the claim recites from *the time* a handle to the first marker *is*

> *obtained*. "The time" indicates a particular time, which in this case is when the handle *is obtained*. As is explained above, any alleged tracking (counting) by a counter does not begin from the time the data structure is created--the (SRU Access Count Rate) is updated *after* successful video clip delivery. For at least these reasons, Kenner does not anticipate.

Br. 15-16. In summary, Appellant makes two points: (1) the (SRU Access Count Rate) tracks accesses to an SRU, it is not a counter to track the transmission of a particular video clip; and (2) the (SRU Access Count Rate) does not count anything "from the time a handle to the first marker is obtained," but is only updated after an access.

As to point (1), the Examiner states that the DSI tracks usage information regarding transmission of the video clip to the user. Ans. 17. The Examiner further states that since the SRU access counter is updated in response to a transmission being requested, the transmission is clearly being tracked by the counter. *Id.*

As to point (1), the Examiner injects a new rationale in the Examiner's Answer by finding that Kenner teaches "the 'audio-visual data index' database which clearly teaches identifying individual video clips and their respective locations and also tracks the Usage Count Rate (how many times a video clip has been requested)." Ans. 17 (emphasis omitted).

Appellant replies that a counter to count the number of times a clip is accessed does not meet the limitation of "a counter to track the transmission from the time a handle to the first marker is obtained" because there is no tracking from the time a handle is obtained. Reply Br. 3. It is argued that

"time is of no interest at all, since all that is detected in Kenner is whether or not the video clip is accessed." *Id.*

As to point (2), the Examiner states that the claim limitations are broad and since Kenner discloses that the DSI is created in response to a video request, and the DSI includes a counter (the (SRU Access Count Rate)) used to report the counter information back to the PIM, "tracking has clearly taken place *from the time* (some time after creation of a DSI 30 is performed) the PIM 22 had created the DSI 30." Ans. 18. The Examiner also finds that the SRU's receipt of a DSI tracks the transmission from a time the handle is first obtained because "the SRU Access Count Rate field resides on the SRU and is ready to be updated from the time a handle to the first marker is obtained (storage at the SRU)." *Id.* at 19.

Issue

Has Appellant has shown that the Examiner erred in finding that Kenner describes "a counter to track the transmission from the time a handle to the first marker is obtained"?

Claim interpretation

Initially, we address several matters of claim interpretation as to the limitation at issue. The Specification describes the structure corresponding to the claimed "counter to track the transmission from the time a handle to the first marker is obtained" as a "count server 30 which includes a bit counter 32 and a time counter 34. The count server 30 counts transmitted bits and elapsed time [from a time the handle is obtained]." Spec. 5, ll. 1-3.

Kenner does not count time or number of bits transmitted from any time. Nevertheless, the limitation of "a counter to track the transmission from the time a handle to the first marker is obtained," does not state what is being counted or how the counting tracks the transmission. We interpret "a counter to track the transmission" as broad enough to read on counting when a transmission containing the first marker has occurred.

The limitation of "a counter to track the transmission from the time a handle to the first marker is obtained" does not require tracking continuously time from the time a handle is obtained. By contrast, claim 16 recites "track the on-going transmission," which requires that the transmission is on-going and has not been completed. We interpret "a counter to track the transmission from the time a handle to the first marker is obtained" to include counting when a transmission has occurred at any time after the handle is obtained. Thus, we are not persuaded by Appellant's argument that updating a counter after a transmission is precluded by the claim language.

Although unstated, the Examiner implicitly interprets "from the time a handle to the first marker is obtained" as broad enough to read on any time a handle is obtained even if this is not the first time it is obtained. For example, the [Video ID] of a video clip (first marker) is assigned to a video clip when it is added to the system (col. 28, ll. 1-7) and is registered in an IM (or PIM) database (col. 28, ll. 47-52), such as the "audio-visual data index" (col. 14, ll. 1-25). Assuming the [Video ID] in the data structure is a handle, this is the first time it is obtained. When the data structure with the [Video ID] is sent to the DSI, the Examiner considers this "the time a handle

to the first marker is obtained" although it is not the first time it is obtained. We conclude that this interpretation is consistent with the claim language.

Analysis

The Examiner finds that when the DSI updates the (SRU Access Count Rate) value and sends it to the PIM, it is updating "a counter to track the transmission."

We agree with Appellant that Kenner's (SRU Access Count Rate) cannot reasonably be considered "a counter to track the transmission from the time a handle to the first marker is obtained." This limitation requires that the counter track the transmission having the first marker, not just any transmission. Kenner describes that "[t]he (SRU Access Count Rate) monitors how often during a predetermined time interval, a particular SRU is used for video delivery." Col. 13, ll. 64-67. Thus, the (SRU Access Count Rate) tracks accesses to a particular SRU; it does not track the number of transmissions of a particular video clip. Although the data structure sent to the DSI includes a [Video ID] field (col. 15, ll. 39-44), the (SRU Access Count Rate) is in no way related to counting the transmission of a particular video clip; the [Video ID] only identifies the clip for retrieval. We agree with Appellant's argument that the (SRU Access Count Rate) does not track transmissions of particular video clips because the report from the DSI to the PIM does not identify a transmission by its [Video ID]. The Examiner finds that Kenner teaches "using the DSI 30 to track the transmission of a specific video clip (with a specific [Video ID]) at a particular SRU" (Ans. 20), but

does not point to where the DSI reports a [Video ID] in connection with the (SRU Access Count Rate). Thus, Appellant has shown error in the Examiner finding that Kenner's (SRU Access Count Rate) is "a counter to track the transmission from the time a handle to the first marker is obtained."

The Examiner raises a new rationale in the Examiner's Answer that Kenner's "audio-visual data index" tracks the Usage Count Rate (how many times a video clip has been requested). Appellant replies that a counter to count the number of times a clip is accessed does not meet the limitation of "a counter to track the transmission from the time a handle to the first marker is obtained" because there is no tracking from the time a handle is obtained. Reply Br. 3. It is argued that "time is of no interest at all, since all that is detected in Kenner is whether or not the video clip is accessed." *Id.*

Kenner describes that the PIM maintains an "audio-visual data index" that identifies each video clip and specifies its location. Col. 14, ll. 1-46. The index maintains a (Usage Count Rate) for each [Video ID]. "The (Usage Count Rate) keeps track of how often a particular video clip is requested during a predetermined time interval, for example, a 24 hour period." Col. 14, ll. 19-21. While the (Usage Count Rate), unlike the (SRU Access Count Rate) primarily relied upon by the Examiner, is at least related in some way to counting the transmission of video clips having a particular [Video ID], it is not tied in any way to "the time a handle to the first marker is obtained." Thus, Appellant has shown error in the Examiner's finding that Kenner's (Usage Count Rate) is "a counter to track the transmission from the time a handle to the first marker is obtained."

Conclusion

Appellant has shown that the Examiner erred in finding that Kenner describes "a counter to track the transmission from the time a handle to the first marker is obtained." The rejection of claims 12-15 is reversed.

Claims 16-18, 20-23, 25-34, and 36-42

We focus on the limitations "in response to providing said handle, track the on-going transmission from said first marker" in claim 16, "tracking the transmission after said first marker, said tracking on-going from the time said handle to said first marker is received" in claim 26, and "tracking from said first marker continues without interruption" in claim 36. These limitations correspond to the limitation "a counter to track the transmission from the time a handle to the first marker is obtained" in claim 12, except that they: (1) do not recite a "counter"; and (2) require an "on-going transmission" (claim 16) or "tracking on-going" (claim 26) or "tracking from said first marker continues without interruption" (claim 36).

The Examiner again relies on the (SRU Access Count Rate) as tracking the number of times video clips with [Video ID]'s have been accessed. For the reasons discussed in connection with claim 12, we find that the (SRU Access Count Rate) does not count or track the number of times a video clip is accessed. While Kenner maintains a (Usage Rate Count) to keep track of how often a video clip is requested during a predetermined period, as discussed in connection with claim 12, it does not track from the time of the first marker. In addition, claims 16, 26, and 36 are

more specific than claim 12 in requiring "on-going" tracking or continuous tracking without interruption from a first marker, which precludes only counting after a transmission has taken place. Tracking must take place continuously "from said first marker." Accordingly, the Examiner erred in finding that Kenner describes the limitations of claims 16, 26, and 36. The rejection of claims 16-18, 20-23, 25-34, and 36-42 is reversed.

OBVIOUSNESS

The Examiner does not rely on Echeita for the limitations found to be missing from Kenner. Accordingly, the obviousness rejection of claims 35 and 43 is reversed.

CONCLUSION

The rejection of claims 12-18, 20-23, 25-34, and 36-42 under 35 U.S.C. § 102(e) is reversed.

The rejection of claims 35 and 43 under 35 U.S.C. § 103(a) is reversed.

REVERSED

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